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FORMER NEBRASKA ORDNANCE PLANT
OU3 PUBLIC MEETING/OU3 REMOVAL ACTION
HELD IN MEAD, NEBRASKA

DATE: MARCH 5, 2007

TIME: 7:00 P.M.

Reported by: Susan McKenzie

Videographer: John Thomas

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2
3
4 (Whereupon, the following proceedings were
5
6 had, to-wit:)

7
8 GARTH ANDERSON: I'd like to point
9
10 out the agenda tonight. We actually have two events
11
12 here tonight that are related to Operable Unit 3.
13
14 First is the Removal Action of the antimony
15
16 contaminated soil that we discussed at the last RAB
17
18 meeting. This meeting is part of the public comment
19
20 process for Removal Action as required under
21
22 Superfund law. So we're going to treat this first
23
24 half of the meeting as a separate meeting so that we
25
26 can have a separate transcript and separate video as
27
28 a matter of public record. And because this facility
29
30 does close at 9:00, and we're guests of the facility,
31
32 guests of the University, they would like us to be
33
34 out of here at 9:00. So I will make every effort to
35
36 get through the slides as quickly as possible during
37
38 the Removal Action so that we have a maximum amount
39
40 of time for questions and answers.
41

42 We will officially adjourn the Removal
43
44 Action meeting, take a break and we will change tapes
45
46 so that we will have a separate transcript for the
47
48 second part of the meeting, Ordnance and Explosives
49
50 Recurring Review. And then we'll leave time for
51
52 questions and answers on that as well.

1
2
3
4 I hope everyone found the handouts in
5
6 the back. There's plenty of them back there. And then
7
8 there's presentation slides there were either
9
10 e-mailed or passed out prior to the meeting.
11

12 Just to make introductions, although
13
14 this is not an official meeting, it's still important
15
16 to recognize folks that are RAB members. Melissa
17
18 Konecky is here. She's the only community RAB member
19
20 here tonight, but we do have a representative from
21
22 Lower Platte North sitting in for Larry Angle, Leah.
23
24 We have the Environmental Protection Agency over
25
26 here. And I think that's it for the official RAB
27
28 type folks.
29

30 Oh, Bruce. I'm sorry. Bruce Haley,
31
32 our gracious host tonight. My humble apologies.
33
34 Bruce has been helping us out getting set up tonight.
35
36 He's always a great help for all of these meetings.
37
38 So I owe you a beer, Bruce.
39

40 Again, mailing list, if you get
41
42 signed up, we'll add you to the mailing list.
43

44 And the project website is in there.
45
46 Please visit it. We have information on the website
47
48 that pertains to all of these actions.
49

50 One other reminder is that we are
51
52 being videotaped and we do have a court reporter

1
2
3
4 taking a written transcript. So when we get to the
5
6 question and answer period, please when you stand up,
7
8 you'll be handed a microphone, state your name
9
10 clearly so we have it for the record.

11
12 Operable Unit 3. Operable Unit 3 is
13
14 the third of the three Operable Units at the Nebraska
15
16 Ordnance Plant. Operable Unit 1 dealt with soil
17
18 contamination, explosives contamination in the soil.
19
20 That was completed in 1998 through an incinerator
21
22 that was built and then torn down on the site.
23
24 Operable Unit 2 is groundwater. And, of course, we
25
26 all know the things that we're doing on site with
27
28 groundwater. And this meeting will focus only on the
29
30 Removal Action related to Operable Unit 3. We won't
31
32 be talking about groundwater or any of the other
33
34 things.

35
36 Generally some of the areas that we
37
38 looked at under Operable Unit 3 -- and we're going to
39
40 go briefly through the remedial investigation just to
41
42 put the Removal Action into context so you'll know
43
44 how we arrived at the Removal Action that we're going
45
46 to be doing.

47
48 Generally we looked at metals in the
49
50 soil, we looked at other contamination in the
51
52 vicinity of the former production buildings, we

1
2
3
4 looked at a lot of other waste disposal areas. We
5
6 did look at surface water, but that's since been put
7
8 into the Operable Unit 2.
9

10 Now, the time line for OU3, we
11
12 initiated this Operable Unit in 1995, and we did a
13
14 two-phase investigation. We wanted to go out and
15
16 collect data to see what it said, to see if we needed
17
18 to go and collect more data to tell us a complete
19
20 picture.
21

22 In 1997 we published the Remedial
23
24 Investigation Report and the Baseline Risk
25
26 Assessment.
27

28 Then based on some things we found
29
30 during Operable Unit 1 in the vicinity of the
31
32 reservoir, we did find a few things that were of
33
34 interest, so we went back for a third-phase
35
36 investigation and some old waste disposal areas up
37
38 around the reservoir, took a look up there was
39
40 anything else that was potentially a threat.
41

42 And then in 2000 we published the
43
44 Feasibility Study. And I need to say that the RI
45
46 Report and the Feasibility Study have been approved
47
48 by the regulatory agency. They are final. So this
49
50 project will not go back and visit those. So we are
51
52 moving forward from the Feasibility Study.

1
2
3
4 There were some delays after the
5
6 Feasibility Study because of some land use control
7
8 issues, but I think since then we've got path forward
9
10 and that's why we're starting to get some momentum on
11
12 OU3 now.

13
14 Okay. At this time Lisa Tholl from
15
16 our contractor, URS, will do a quick overview of the
17
18 remedial investigation, because she was the one on
19
20 the ground during that time and she has the firsthand
21
22 knowledge.

23
24 So Lisa, it's all yours.

25
26 LISA THOLL: Lisa Tholl again, URS.

27
28 I think as Garth mentioned before,
29
30 we're here to talk about the OU3 Removal Action and
31
32 to put into context all the investigation areas that
33
34 we looked at and where we're getting to with the OU3
35
36 Removal Action. That's kind of all I'm going to talk
37
38 about.

39
40 There were many, many areas that we
41
42 investigated as part of OU3, Operable Unit 3. And as
43
44 I kind of run through them, if you look up here on
45
46 our big map, all of the numbers correspond to an
47
48 investigation area. The handout that you have over
49
50 there that lists all the investigation areas as well
51
52 as this map over here kind of shows all of those that

1
2
3
4 I'm going to talk about. I won't point them out by
5
6 number, but you can correspond them with your 11 by
7
8 17 map that you have. Hopefully you picked it up as
9
10 a handout. I think it's one of the first handouts
11
12 over there.

13
14 As Garth said, Operable Unit 3, we
15
16 looked at everything that wasn't looked at with OU1
17
18 and OU2. We performed an investigation over about a
19
20 three and a half month period, the first phase. We
21
22 looked at investigating all of the Load Line
23
24 buildings. We looked at storage igloos which were to
25
26 the north. And this is the raw product storage
27
28 igloos. We looked at the Tetryl pelleting area, the
29
30 north and south burning grounds, proving grounds,
31
32 potential landfill, former NOP landfill, demolition
33
34 ground.

35
36 And again, I won't point out all of
37
38 them, but feel free after the meeting to come up and
39
40 take a look and see where they're situated on this
41
42 map if they're not clear on the 11 by 17 map.

43
44 We looked at a berm area that was
45
46 southwest of Load Line 1, and then potential waste
47
48 disposal areas near the Nike maintenance area, the
49
50 bomb booster area, ammonium nitrate plant, atlas
51
52 missile area. We looked at the northeast boundary of

1
2
3
4 the site, actually up in this area here -- the
5
6 number's not on this map here -- the ammonium nitrate
7
8 plant, Johnson, Silver and Clear Creeks like Garth
9
10 said, which is now part of -- we kind of put it into
11
12 OU2, the NRD reservoir, underground storage tanks --
13
14 that's what the UST stands for. Throughout the site
15
16 there were several underground storage tanks that we
17
18 looked at. There was a geophysical anomaly in a
19
20 past investigation that was in the vicinity of Load
21
22 Line 3. And then as also part of our Operable Unit
23
24 3, we did an on-site investigation in all of the
25
26 former NOP buildings looking for containerized waste
27
28 that might have been left over from DOD activities.
29

30 So as you can see, OU3 covered a wide
31
32 variety of the site, it covered buildings, waste
33
34 disposal areas, what maybe were thought to be waste
35
36 disposal areas from looking at aerial photographs of
37
38 the activity of the NOP, storage tanks, surface
39
40 water. We looked at a lot of things throughout OU3.
41

42 And so as Garth said, we kind of put
43
44 in context where we are now after all of that
45
46 investigation. Now we're looking at the OU3 Removal
47
48 Action which is to take care of antimony contaminated
49
50 soils that were found to be the only thing that
51
52 needed to be cleaned up after all of this work.

1
2
3
4 Again, that map that you have is an 11
5
6 by 17, and also here on the wall as well as the
7
8 Post-It notes up here identify all the areas that
9
10 were looked at in all three phases of Operable Unit
11
12 3.

13
14 This is a typical Load Line
15
16 configuration. When I said that we looked at the
17
18 Load Line buildings, remember we have four Load Lines
19
20 at the site, Load Line 1, 2, 3 and 4. And each of
21
22 the Load Lines had a roadway that went around it --
23
24 that's the roadway -- and then a series of bomb
25
26 production buildings, paint operation buildings, wash
27
28 houses, change houses for the employees that went
29
30 from the north -- this is the north end of the Load
31
32 Line all the way down to the south. So again, up
33
34 here for the north end of the Load Line down to the
35
36 south. That was a typical layout of all the
37
38 buildings. Some of the buildings are still in
39
40 existence; some have been demolished.

41
42 When we talk about the OU3 Removal
43
44 Action, we'll be talking about the potential landfill
45
46 area, which is this area right here up against the
47
48 NRD reservoir, and that up here on the big map --
49
50 it's kind of hard to see, but this figure right here
51
52 is the reservoir, and the potential landfill area is

1
2
3
4 right up against that.

5
6 LYNN MOORER: Lynn Moorer.

7
8 I have recently had the opportunity to
9
10 look at some of the videotapes -- or the DVDs. And
11
12 you need to know that when you use that little light
13
14 indicator, you can't see it on the -- that's totally
15
16 lost. You know what I mean? So if you could point
17
18 like with a pencil or something when you're looking
19
20 at the map, that would be more useful. Otherwise
21
22 it's totally lost information.

23
24 LISA THOLL: Thank you. That's a good
25
26 point. Thank you.

27
28 So as far as the investigation results
29
30 for OU3, the only areas that showed contamination
31
32 posing an unacceptable risk is again the antimony
33
34 contaminated soil which is the subject of this first
35
36 public meeting and is the OU3 Removal Action related
37
38 to the antimony which is a heavy metal. And again,
39
40 the three areas of all of the areas here that we
41
42 investigated with OU3, we're talking about Load Line
43
44 2, Load Line 4, paint operations and the potential
45
46 landfill area. And again, if you can see the slide
47
48 here, Load Line 2, Load Line 4, the potential
49
50 landfill area, those are the three areas where the
51
52 antimony contaminated soil is set to be removed.

1
2
3
4 Again, to give you a proximity with
5
6 the Load Line buildings where the paint operations
7
8 building were, again, here you can see paint
9
10 operations were kind of in two spots on a typical
11
12 Load Line configuration. And again, we're talking
13
14 about the potential landfill area that is just to the
15
16 west of the reservoir.
17

18 GARTH ANDERSON: Okay. Which leads us
19
20 to what we call a non-time critical Removal Action.
21

22 We discussed the result of the
23
24 investigation where we identified the antimony
25
26 contaminated soil area. Now, the risk from antimony
27
28 is non-carcinogenic; in other words, it's not one of
29
30 those that causes of cancer. It causes other health
31
32 affects. I do have some handouts if you want some
33
34 more detailed information on some of the effects from
35
36 antimony. But again, it does not create a
37
38 carcinogenic effect.
39

40 The objective of the Removal Action is
41
42 to minimize exposure -- skin exposure as well as any
43
44 kind of incidental ingestion that a worker might have
45
46 at the site. And the total amount of soil proposed
47
48 for excavation would be about a thousand cubic yards,
49
50 and the excavated soil would be disposed of in an
51
52 approved off-site landfill, a licensed hazardous

1
2
3
4 waste type landfill.
5

6 The Removal Action process, it's
7
8 called Removal Action, but that does not necessarily
9
10 mean we physically remove something; it could be
11
12 other forms of land use control or signage. It just
13
14 so happens in this case we're actually going to
15
16 remove soil. The Removal Action can take place at
17
18 any time during the remedial investigation,
19
20 feasibility, up through the ROD. It's intended to
21
22 either -- if it's time critical, it's intended to
23
24 deal with an imminent threat to human health and the
25
26 environment. In this case it's non-time critical.
27
28 It's not an immediate threat, but it's something that
29
30 has to be done. And it just so happens we have
31
32 things in place that we can deal with it this year,
33
34 funding and a contract. So we can go ahead and take
35
36 care of that problem now.
37

38 LYNN MOORER: You said you have what
39
40 in place?
41

42 GARTH ANDERSON: The funding, the
43
44 money in place.
45

46 LYNN MOORER: Oh, okay.
47

48 GARTH ANDERSON: And this is an
49
50 interim action. This is not intended to be the final
51
52 action on Operable Unit 3. The final action will be

1
2
3
4 described in the proposed plan, the Record of
5
6 Decision, which will follow later.
7

8 One of the requirements of a Removal
9
10 Action is the preparation of an Engineering
11
12 Evaluation and Cost Analysis where it looks at
13
14 different alternatives for doing the cleanup at that
15
16 particular site. And it actually recommends the
17
18 preferred alternative. So we looked at different --
19
20 and I'll go through the alternatives here in just a
21
22 second. It's similar to a Feasibility Study, which
23
24 was already approved on the site. The only
25
26 difference is the EE/CA actually recommends an
27
28 alternative. So what we did is we put an addendum
29
30 into the Feasibility Study that recommended the
31
32 preferred alternative and thus it was effectively an
33
34 EE/CA.
35

36 The Removal Action process does
37
38 require public participation. We did publish public
39
40 notices in four newspapers on February 22nd. Tonight
41
42 was our public availability session earlier and
43
44 public meeting tonight. The EE/CA has a 30-day
45
46 public comment period which started on February 23rd
47
48 and ends on March 22nd. The actual document is
49
50 again available in the Mead Public Library if you
51
52 want a hard copy, and it's posted on the project

1
2
3
4 website. For those that would like, I also have a CD
5
6 that I can give you tonight where you can take it
7
8 home and get on your computer at your leisure. And
9
10 also on the CD I included the Remedial Investigation
11
12 Report and Baseline Risk Assessment and all the
13
14 associated documents. So you can get the complete
15
16 picture if you really want to delve into the details.
17

18 The comments, we need to receive
19
20 them -- or have them postmarked by March 22nd. I
21
22 have comment forms on the table with some Business
23
24 Reply Postage Paid envelopes back to me, so if you
25
26 want to take it home and write up the comments and
27
28 send them to me, that would work very well. And I'll
29
30 even accept e-mails or whatever other means you might
31
32 have. And actually any questions that you ask during
33
34 the question and answer period tonight become part of
35
36 the public record, which will then be addressed in
37
38 what we call a Responsiveness Summary that will be
39
40 included in our Action Memorandum, which is the
41
42 decision document that actually formalizes the
43
44 decision. So any questions asked during that will be
45
46 reported and answered in the Responsiveness Summary.
47

48 LYNN MOORER: Since you're right on
49
50 it, you said the Responsiveness Summary is a part of
51
52 what document?

1
2
3
4 GARTH ANDERSON: It's part of the
5
6 Action Memorandum. This is the document that follows
7
8 the EE/CA. It's very similar to the Record of
9
10 Decision. It serves the same purpose. It formalizes
11
12 the decision we make for the cleanup.

13
14 LYNN MOORER: So you're not doing a
15
16 Record of Decision on this?

17
18 GARTH ANDERSON: No. This is an
19
20 interim action, although the Final Record of Decision
21
22 will reflect any interim actions we may have taken.
23
24 And we expect to do the field work in fall of 2007.

25
26 Again, this is not the final action.
27
28 We still have the Proposed Plan and Record of
29
30 Decision for Operable Unit 3 that follows. And some
31
32 things that will be included in that are any land use
33
34 controls and the Ordnance and Explosives component.

35
36 In a Removal Action we consider four
37
38 alternatives. You see a "no action." That's
39
40 actually required by law that we look at what would
41
42 happen if we did nothing. And then we looked at
43
44 three other ones that actually were active remedies.
45
46 One was putting a cap over the soil; the second one
47
48 was digging it up and hauling it away; and the third
49
50 alternative was a combination of the first two.

51
52 We are recommending the second

1
2
3
4 alternative because, one, it's a permanent
5
6 solution, -- I'm sorry -- alternative No. 3. I was
7
8 talking about the second of the active remedies.
9
10 Alternative No. 3 is the recommended alternative
11
12 because it is permanent, it's the most cost
13
14 effective, and there's no site management required
15
16 once we're completed with the action. It goes
17
18 away.

19
20 Cleanup action. Load Line 2, there's
21
22 approximately 300 cubic yards of contaminated soil.
23
24 Load line 4 is a lot smaller area, about a hundred
25
26 cubic yards, and the potential landfill is around 600
27
28 cubic yards. And these are approximate volumes
29
30 obviously. When we actually go out and do the
31
32 excavation, we plan on going to about one foot on the
33
34 two Load Lines and about 4 feet on the potential
35
36 landfill. And based on our sampling, that excavation
37
38 should get the Hazard Index to below one.

39
40 If I didn't explain Hazard Index, a
41
42 Hazard Index of greater than one means there is a
43
44 risk that we need to deal with; if it's less than
45
46 one, then it doesn't pose an unacceptable risk. So
47
48 this excavation will get that site to a below one
49
50 Hazard Index. But when you have folks out there
51
52 digging, you have to have some kind of standard so

1
2
3
4 they know when to stop digging. And our number that
5
6 we're going to be going with is 31 parts per million,
7
8 which is a nationally accepted number for antimony.
9
10 And we believe that the excavation will get us well
11
12 below that. We will not leave anything out there
13
14 that's greater than 31 parts per million.

15
16 Again, you have handouts that detail
17
18 this a lot better. Load Line 2, there's a specific
19
20 area that we have the elevated concentrations of
21
22 antimony.

23
24 Now, Load Line 4 is a different
25
26 location relative to the other one, you know, a
27
28 relative position because it's a different Load Line.
29
30 That's the only place we found it there. And then
31
32 the potential landfill area is a very specific area
33
34 why we did find the antimony. If you look at this
35
36 slide and the handouts, you can see all the soil
37
38 sampling that we did in those areas. It was a pretty
39
40 extensive sampling grid.

41
42 Okay. We did get through the slides
43
44 fairly quickly. It looks like we did leave ourselves
45
46 plenty of time to ask questions. So at this time I
47
48 will entertain any questions that people have.
49
50 Again, if you would clearly state your name so that we can
51
52 get it for the record.

1
2
3
4 LORUS LUETKENHAUS: Lorus Luetkenhaus.
5
6 When you sampled all these sites, did
7
8 you sample around the reservoir and under the
9
10 reservoir?

11
12 GARTH ANDERSON: Yes, we did, during
13
14 the -- well, we sampled all around the reservoir in
15
16 various phases, especially on Operable Unit 1 we did
17
18 some excavations and sampling around the reservoir.
19
20 Actually, we need to go back to the maps to show what
21
22 sampling we did.

23
24 Okay. I'll point manually here.

25
26 And Lisa, you can help me out too
27
28 since you were out there.

29
30 The NRD reservoir is right here. We
31
32 sampled along the banks of the reservoir all the way
33
34 down to here. And during Operable Unit 1 we also did
35
36 some excavations and sampling during that part of the
37
38 project.

39
40 LORUS LUETKENHAUS: But you didn't
41
42 specifically sample under the reservoir?

43
44 GARTH ANDERSON: Lisa, can you answer
45
46 that?

47
48 We did some sampling along the shore.
49
50 I'm trying to think if we did some --

51
52 LISA THOLL: Lisa Tholl, URS.

1
2
3
4 We sampled sediment in the reservoir,
5
6 and we actually had the reservoir lowered, drained,
7
8 if you will, to expose more of the area that was the
9
10 potential landfill and the proving grounds, and then
11
12 took samples, if that answers your question as to
13
14 "under."

15
16 LORUS LUETKENHAUS: Not really,
17
18 because years ago -- and the gentleman is no longer
19
20 with us -- but he told me at the time that dam was
21
22 built because it was cheaper to put that dam in than
23
24 it was to clean up the mess that was under the water.
25
26 And that's why I'm asking you if you sampled under
27
28 the water. I'm glad that you did along the banks,
29
30 but that doesn't quite answer my question.

31
32 LISA THOLL: We had NRD drain the
33
34 reservoir to as much as we could get it drained to
35
36 again expose more of what the potential landfill and
37
38 the proving ground was before we started sampling.
39
40 And I'm just going to throw out a demarcation. I'm
41
42 not saying it's exact. But the reservoir might have
43
44 been here (indicating), and we had it drained for a
45
46 month period or more so that we exposed more area
47
48 that we could actually get in and sample.

49
50 LYNN MOORER: But -- excuse me. This
51
52 is Lynn Moorer.

1
2
3
4 Ms. Tholl, the reservoir, the records
5
6 do not indicate that it was ever drained to the point
7
8 of anything approaching dryness. It was just a few
9
10 feet along the banks, along the shores. So it came
11
12 down a few feet, but there still was a huge amount of
13
14 water left in the reservoir according to what the
15
16 documentation says, right? Do you want to clarify
17
18 how much actually -- how far down it was drained?
19

20 LISA THOLL: I can't answer. I don't
21
22 know the exact feet that it was drained, that it was
23
24 exposed. It was more than -- if you say a few feet
25
26 is three feet, it was more than that.
27

28 LYNN MOORER: But was the reservoir
29
30 drained to dryness or to the point that you could
31
32 walk all the way across because you were on the
33
34 bottom? I mean, was it drained to that point?
35

36 LISA THOLL: No.
37

38 SCOTT MARQUESS: Scott Marquess, EPA.
39
40 I was just looking at the figure,
41
42 drawing 2-3. It looks like it kind of shows the
43
44 extent of the sampling, right? That's how far -- you
45
46 see the triangles? That's the extent of the
47
48 sampling, towards the reservoir.
49

50 LYNN MOORER: Mr. Marquess, could you
51
52 characterize approximately what percentage, I mean,

1
2
3
4 relatively speaking? It's a small percentage of the
5
6 entire area of the reservoir, is it not?
7

8 SCOTT MARQUESS: The map shows what's
9
10 portrayed as the highest observed NRD reservoir
11
12 elevation and then the lowest observed NRD reservoir
13
14 elevation. And you can see where the samples
15
16 approach that. So I don't really have an estimate of
17
18 the percentage or otherwise the water level. But the
19
20 most you can see is from the edge of the sampling
21
22 line to the water level -- to the water table.
23

24 GARTH ANDERSON: Okay. Next
25
26 question.
27

28 MELISSA KONECKY: Actually, I have a
29
30 couple.
31

32 Well, maybe I'll wait then until the
33
34 next section.
35

36 GARTH ANDERSON: Okay.
37

38 LYNN MOORER: This is Lynn Moorer.
39

40 I ask that the transcripts of the
41
42 previous RAB meetings been incorporated by reference
43
44 with respect to risk and health concerns.
45
46 Specifically these were health and risks concerns
47
48 investigated by myself, by Ms. Wageman, and many
49
50 others. These meetings whose transcripts I ask to
51
52 incorporate by reference as part of the comments of

1
2
3
4 this meeting include August 30th, 2005, December 1st,
5
6 2005, April 6th, 2006, July 13, 2006, October 26,
7
8 2006, and January 25th, 2007. There were a lot of
9
10 questions and concerns raised about health and risk
11
12 with respect to the site. And I ask that those
13
14 comments be addressed as a part of the comments on
15
16 this particular project.
17

18 GARTH ANDERSON: Well, I need to state
19
20 that this public meeting is dealing directly with the
21
22 Antimony Removal Action. And you would have to be
23
24 way more specific on what you want referenced as to
25
26 risks from those meeting transcripts.
27

28 LYNN MOORER: Health and risk with
29
30 respect to exposure to contamination. At each one of
31
32 these meetings I think it is correct to say there was
33
34 some reference to the NRD reservoir and the risks
35
36 associated with exposure to any contaminants there.
37
38 So I'm asking that those be incorporated as a part of
39
40 the record.
41

42 I wonder then may I ask, the
43
44 Feasibility Study which you updated or made an
45
46 addendum to --
47

48 GARTH ANDERSON: Yes.
49

50 LYNN MOORER: -- in -- was that
51
52 January of this year?

1
2
3
4 GARTH ANDERSON: Actually the official
5
6 one we're using is dated March of 2007.
7

8 LYNN MOORER: Okay. I'm referring to
9
10 the document that you have posted on your website.
11

12 GARTH ANDERSON: Yes.

13
14 LYNN MOORER: Is that the document?

15
16 GARTH ANDERSON: Yes.

17
18 LYNN MOORER: All right. It appeared
19
20 to me that the date on the bottom of it indicated it
21
22 was dated January 2007. But in any event --
23

24 GARTH ANDERSON: They're virtually
25
26 identical.
27

28 LYNN MOORER: All right. So that's
29
30 the document?
31

32 GARTH ANDERSON: Yes.

33
34 LYNN MOORER: All right. I wanted to
35
36 check with you then, that's basically the foundation
37
38 for this particular Removal Action?
39

40 GARTH ANDERSON: Yes.

41
42 LYNN MOORER: All right. In reviewing
43
44 this, I looked on page 1-6 of the report and was
45
46 reading through the section discussing the Baseline
47
48 Risk Assessment and the various exposure levels, the
49
50 reasonable maximum exposure and the average exposure
51
52 approach. And it says here, quote, "Risk assessment

1
2
3
4 results are summarized in tables 2-1 through 2-7 for
5
6 the exposure areas with potential risk," close
7
8 quote.
9

10 Do you have a copy of that report that
11
12 was posted the website? Are you able to -- do you
13
14 have a copy there that you could refer to? Do you
15
16 know that that was what was posted?
17

18 SCOTT MARQUESS: I don't know.
19

20 LYNN MOORER: Because I looked for
21
22 these tables, tables 2-1 through 2-7, and they're not
23
24 a part of that report.
25

26 GARTH ANDERSON: I'm looking. And you
27
28 may be correct. We may have to issue a correction to
29
30 that.
31

32 SCOTT MARQUESS: I'd just concur with
33
34 what Ms. Moore said, tables 2-1 through 2-7.
35

36 GARTH ANDERSON: Yeah, we concur with
37
38 that. And we will issue a correction to that.
39

40 SCOTT MARQUESS: I do have the
41
42 Feasibility Study here. Maybe it's in that.
43

44 LYNN MOORER: Well, at a minimum, I
45
46 request that the public comment period not begin --
47
48 the 30-day public comment period not begin until this
49
50 complete report including all the tapes is made
51
52 available on your website and wherever else you have

1
2
3
4 put it, in the repositories, DEQ, the Mead library.
5

6 GARTH ANDERSON: That's a fair
7
8 request. We can do that. We'll reissue that
9
10 document with the tables added.
11

12 LYNN MOORER: The basic point here is
13
14 we need time to be able to analyze that. So being
15
16 able to look at it this evening is helpful, but the
17
18 public comment period should not start until that is
19
20 actually made available to everyone.
21

22 GARTH ANDERSON: We agree.
23

24 SCOTT MARQUESS: I do have a copy of
25
26 the December 2000 Feasibility Study, and it does have
27
28 tables in it. So I don't know -- do we have a
29
30 copier?
31

32 GARTH ANDERSON: Just a printer.
33
34 We'll get that posted. It should be within a couple
35
36 of days. And we'll extend the comment period
37
38 accordingly when the corrected one is available.
39

40 Next question.
41

42 LYNN MOORER: I'm happy to have
43
44 somebody else go first. I just have a long list of
45
46 questions.
47

48 Does anybody else have a question?
49

50 (No response).
51

52 LYNN MOORER: Okay. I'll go with

1
2
3
4 another one, and then somebody else can come in.
5

6 I wonder if we could look at Table
7
8 2-11. I did examine closely the tables that were
9
10 provided. And this is entitled "Rationale Used in
11
12 Defining the Vertical Extent of Remediation at the
13
14 Former Nebraska Ordnance Plant."
15

16 So I'm looking at the column that's
17
18 entitled "Minimum sampling interval at which antimony
19
20 did not contribute to Hazard Index greater than one
21
22 feet."
23

24 GARTH ANDERSON: Okay.
25

26 LYNN MOORER: Okay. So the first
27
28 line indicates "Load Line 2 Paint Area," it says,
29
30 "One to two feet," and then the next line, "Load Line
31
32 4," it also says, "One to two feet," and then for the
33
34 potential landfill area it says, "Four to five
35
36 feet."
37

38 GARTH ANDERSON: Yes.
39

40 LYNN MOORER: This is maybe a pretty
41
42 basic question. You're planning to excavate to one
43
44 foot in depth for Load Line 2 and 4 and to four feet
45
46 for the potential landfill area. Given the minimum
47
48 sampling interval, shouldn't you actually be
49
50 excavating to two feet for the Load Line 2 and 4 and
51
52 to five feet for the potential landfill area because

1
2
3
4 that was where your range was? If the idea is to
5
6 excavate all of the contaminated soil, then it would
7
8 seem to me you would go to the deeper level.
9

10 GARTH ANDERSON: Well, if you read
11
12 this table, it says at the interval of one to two
13
14 feet that was sampled, the antimony did not
15
16 contribute to Hazard Index of greater than one. But
17
18 again, this is not an exact cut line. In other
19
20 words, we will -- our initial excavation is to one
21
22 foot, at which point we will do confirmation
23
24 sampling. And if we still find levels of antimony
25
26 above the 31 parts per million, then we keep going.
27
28 And that goes for both the vertical and the
29
30 horizontal extended contamination. So the intervals
31
32 or the depth of one foot at the Load Lines and four
33
34 feet at the potential landfill are estimates at this
35
36 point.
37

38 LYNN MOORER: So would it be fair to
39
40 say that for this what you're calling interim action
41
42 is not treated the same way as you treat the cleanup
43
44 levels that are established in the ROD, that what you
45
46 regard to be -- as you've told us over and over -- to
47
48 be set in stone with respect to the cleanup levels
49
50 for OU2, whereas here the blessing and acceptance of
51
52 this particular document of saying you're going to go

1
2
3
4 down one foot for the Load Line 2 and 4 and four feet
5
6 for potential landfill is not -- the Army is not
7
8 later going to come back and rest upon that and
9
10 claim, we don't have to go any farther than that
11
12 because that's what the action document says?

13
14 GARTH ANDERSON: The action document
15
16 will actually specify 31 parts per million as well.
17
18 Again, these depths are estimates so we can get an
19
20 estimate of volume of contaminated soil. But we will
21
22 still use that 31 parts per million as a level to
23
24 remediate to.

25
26 LYNN MOORER: How was that 31 parts
27
28 per million generated? That number is accepted by
29
30 whom?

31
32 GARTH ANDERSON: I'd like to refer
33
34 that to EPA because it is an EPA derived number.

35
36 SCOTT MARQUESS: It's a number that's
37
38 actually posted on the EPA Region 9 website, but it's
39
40 generally the Non-carcinogenic Hazard Index for
41
42 antimony of one associated with a residential
43
44 exposure scenario.

45
46 I mean, if you check EPA Region 9, if
47
48 you Google that, you will find a PRG table. If you
49
50 look under residential soil cleanup levels, it shows
51
52 non-carcinogenic, 31 parts per million.

1
2
3
4 GARTH ANDERSON: Next question?

5
6 Do we have another question or are we
7
8 actually --
9

10 LYNN MOORER: When was the Baseline
11
12 Risk Assessment started?
13

14 GARTH ANDERSON: The Baseline Risk
15
16 Assessment was actually -- it's part of the remedial
17
18 investigation. The reason it's listed as a separate
19
20 document is because it's so voluminous. The exact
21
22 date -- well, I need to go back and look at my time
23
24 line again.
25

26 LYNN MOORER: A month and a year would
27
28 be close enough.
29

30 GARTH ANDERSON: I need to back up
31
32 to -- now, we issued the first Baseline Risk
33
34 Assessment in 1997. And then when we issued an RI Addendum in
35
36 2000 -- I need to double check if we -- did we issue
37
38 an addendum to the Baseline Risk Assessment as well?
39

40 LISA THOLL: I don't know.
41

42 GARTH ANDERSON: I owe you an answer
43
44 on that one.
45

46 LYNN MOORER: Mr. Marquess, does the
47
48 Risk Assessment, the latest version of the Risk
49
50 Assessment, I presume the revised or the addendum or
51
52 however you want to characterize it, the latest Risk

1
2
3
4 Assessment for this site, does it confirm with the
5
6 most recent regulatory guidance with regard to
7
8 performing Risk Assessments?
9

10 SCOTT MARQUESS: I don't know that it
11
12 does. I think that there were some modifications to
13
14 the guidance somewhere along the way, and there was
15
16 an agreement not to modify the Risk Assessment
17
18 somewhere in that process.
19

20 Does that sound right to you all?
21

22 GARTH ANDERSON: Yes, because a lot of
23
24 these you don't grandfather back.
25

26 SCOTT MARQUESS: I believe there was a
27
28 provision in the FFA that allowed for that.
29

30 GARTH ANDERSON: That's correct.
31

32 LYNN MOORER: If the most recent
33
34 regulatory guidance regarding assessing risk were
35
36 used, what would be the acceptable Hazard Index
37
38 level?
39

40 SCOTT MARQUESS: One.
41

42 LYNN MOORER: One. All right. And
43
44 can you give us an idea that if current Risk
45
46 Assessment guidance were the guiding light with
47
48 respect to the assessment on this site, how would
49
50 that affect this particular plan? That is, would we
51
52 be looking at removing more soil, going deeper, going

1
2
3
4 broader, looking at different areas at the site in
5
6 addition to the areas that are being looked at?
7

8 I would appreciate you giving us your
9
10 view on how this particular plan might be different
11
12 if current regulatory guidance regarding assessing
13
14 risk were actually being used.
15

16 SCOTT MARQUESS: Relative to this
17
18 action associated with the antimony, I don't believe
19
20 there would be any difference. The 31 parts per
21
22 million number -- by the way, I referenced the EPA
23
24 Region 9 website. Those are not promulgated
25
26 standards for soil cleanup. They're just a
27
28 compilation of risk base numbers that have been
29
30 tabulated and kept in one place for easy use. But
31
32 those numbers were calculated I believe in 2004. So
33
34 for the antimony soil, I don't believe it's different
35
36 than what we're talking about doing here with any
37
38 other guidance.
39

40 GARTH ANDERSON: In fact, it's
41
42 important to note that that number may or may not
43
44 even have been the same back when we did the Baseline
45
46 Risk Assessment. We looked for the most recent
47
48 number for the antimony remediation goal that Mr.
49
50 Marquess was talking about. We needed to establish
51
52 an actual level to clean to for the Removal Action.

1
2
3
4 That's the one we wanted to use.
5

6 SCOTT MARQUESS: I have here an April
7
8 20th, 2000, letter where EPA approved the draft final
9
10 report, "Revised Baseline Risk Assessment for OU3"
11
12 dated February 2000. And EPA said -- and this really
13
14 looks -- it's specific to the Ecological Risk
15
16 Assessment. Now, I don't know if there were other
17
18 issues in place at the time. But in the Ecological
19
20 Risk Assessement, "EPA has not identified any
21
22 significant risk to human health or the environment
23
24 that was overlooked by using the old guidance that
25
26 would not"-- I don't think this is worded right --
27
28 "EPA has not identified any significant risk to human
29
30 health or the environment that was overlooked by
31
32 using the old guidance that would not have been
33
34 overlooked had the current been used."
35

36 I'm thinking that's really not what we
37
38 intended to say. I think what it means is that there
39
40 wasn't a significant difference by the methods
41
42 between the old guidance and the new guidance.
43

44 Does that answer your question?
45

46 LYNN MOORER: I appreciate hearing
47
48 EPA's view. I should share with the folks here,
49
50 however, that DEQ took a different view of it in
51
52 January of 2000 and noted the difference in the Risk

1
2
3
4 Assessment. And at that time Ken Maas, I believe is
5
6 the way that you pronounce his name -- it's spelled
7
8 M-A-A-S -- who is with the Superfund Section of Waste
9
10 Management Division at DEQ, communicated to then
11
12 project manager Steve Iverson that the Risk
13
14 Assessment was not adequate because it didn't follow
15
16 the guidance that he believed should be followed.
17
18 And he said that the State did not -- that the State,
19
20 meaning the State of Nebraska, reviewed the Human
21
22 Health Baseline Risk Assessment, but because the
23
24 ecological portion of the Risk Assessment did not
25
26 utilize current EPA guidance, the Ecological Risk
27
28 Assessment was not reviewed. And he indicated that
29
30 all Risk Assessments prepared after January 1st,
31
32 1998, were required to use the Risk Assessment
33
34 guidance for Superfund Part D and that the
35
36 standardized tables that are the basis of Part D were
37
38 not included in this Risk Assessment. Among the
39
40 things that he noted, he said, "To be consistent with
41
42 U.S. EPA guidance, a Central Tendency Exposure
43
44 Assessment rather than an average exposure approach
45
46 should be presented." And so he noted that that was
47
48 something that wasn't in there.

49
50 I wonder if it wouldn't make that much
51
52 difference to you, than why couldn't you go ahead and

1
2
3
4 add that in, go ahead and prepare a table or a chart
5
6 that includes that so that we have that by
7
8 comparison?
9

10 SCOTT MARQUESS: The decisions for the
11
12 site are based on the reasonable maximum exposure
13
14 rather than the central tendency or the average. So
15
16 I don't think it would -- you know, the reasonable
17
18 maximum would be the driver. It would be the more
19
20 conservative than the central tendency. So I don't
21
22 think having the central tendency risks portrayed
23
24 would change the decisions made based on the Risk
25
26 Assessment.
27

28 LYNN MOORER: Slide 16 refers to
29
30 something called "unacceptable risk." Would you
31
32 please define what you mean by "unacceptable risk"?
33
34 I noticed that was something else that one of your
35
36 reviewing regulators continuously asked you not to
37
38 use, that phrase.
39

40 GARTH ANDERSON: Well, in this case an
41
42 unacceptable risk means a Hazard Index greater than
43
44 one.
45

46 LYNN MOORER: Now, this Feasibility
47
48 Study assumes that the contaminated soil will not
49
50 require treatment prior to disposal.
51

52 GARTH ANDERSON: Correct.

1
2
3
4 LYNN MOORER: If treatment is in fact
5
6 required, does that 50 percent plus or 30 percent
7
8 minus cost range cover that additional cost?
9

10 GARTH ANDERSON: I can't see how we
11
12 would -- metal soil or contaminated -- metals
13
14 contaminated soil, especially at this level, would
15
16 require any treatment. But at the most it would
17
18 maybe require solidification or stabilization, which
19
20 is a very inexpensive process.
21

22 LYNN MOORER: So the answer is --

23
24 GARTH ANDERSON: I don't believe so.
25

26 LYNN MOORER: Actually, let me reask
27
28 my question. And just note that when you're cleaning
29
30 up, you don't have some gadget that's able to say,
31
32 antimony, antimony, where are you, come here, and so
33
34 the only thing you pick up is antimony. You're going
35
36 to be picking up other things and other contaminants
37
38 there with it. So that's usually the thing that
39
40 complicates disposal, that best-laid plans may well
41
42 include other contaminants in there.
43

44 The question I asked you, Mr.
45
46 Anderson, is would your cost range that includes a 50
47
48 percent increase that you have shown in the tables in
49
50 the back of this Feasibility Study, would that be
51
52 sufficient to cover the additional cost if treatment

1
2
3
4 were required?

5
6 GARTH ANDERSON: The only potential
7
8 treatment that we would see would be maybe the
9
10 commingled contaminants, which are principally
11
12 metals. It would likely not exceed the 50 percent.

13
14 Again, we're looking at this specific
15
16 Removal Action, which is almost all metals
17
18 contamination, and all the metals behave in a similar
19
20 way in contaminated soil.

21
22 LYNN MOORER: Okay. I have another
23
24 question for you here.

25
26 What are the land use -- if you want
27
28 to go back to slide 9, what are the land use control
29
30 policy and issues that have delayed completion of the
31
32 proposed plan and the Record of Decision?

33
34 GARTH ANDERSON: Let me go back a
35
36 little bit in that there was a -- there was
37
38 difficulty in the Army being able to implement a land
39
40 use control on property it did not own. So there
41
42 were things that -- you know, on a typical piece of
43
44 property where you could put in a deed restriction or
45
46 some other type of restriction against a piece of
47
48 land, and if you're the owner, or if it's in private
49
50 hands, that works okay. But if we -- if the
51
52 government does not actually control that piece of

1
2
3
4 property, sometimes land use controls are difficult
5
6 to implement.
7

8 LYNN MOORER: So for our reference, do
9
10 you want to point out to us where the chief areas are
11
12 that are at issue, on the map preferably?
13

14 GARTH ANDERSON: Basically up here in
15
16 the proving ground/burning ground area -- again, this
17
18 is outside of the Antimony Removal Action. This
19
20 actually goes into the other parts of OU3. If we
21
22 were to have to put any restrictions in here,
23
24 especially with regards to Ordnance and Explosives,
25
26 then those land use controls would be difficult to
27
28 implement or enforce. However, since all that property
29
30 is under university control, there are other
31
32 arrangements through other means that we can come to
33
34 some agreement on those land use controls.
35

36 LYNN MOORER: I've seen documentation
37
38 from the university in the files from the
39
40 university's attorney, Judy Roots, proposing simple
41
42 conservation easements or other forms of easements
43
44 that can be recorded on the property, and so she has
45
46 offered -- and this was awhile back. I wonder why it
47
48 has taken so long, why it's still in limbo. You
49
50 clearly have a cooperative responsible party, fellow
51
52 responsible party on that. So it seems to me seven

1
2
3
4 years is plenty amount of time now to finally --
5
6 since the Feasibility Study was published to finally
7
8 be getting that stuff taken care of.
9

10 GARTH ANDERSON: The point of the
11
12 comment was, if you look at the slide, you have a
13
14 Feasibility Study in 2000, and here we are in 2007,
15
16 why was the delay. What we have initially along the
17
18 way is because of resolving that particular issue
19
20 with the university.
21

22 LYNN MOORER: But it's not resolved
23
24 yet, is it?
25

26 GARTH ANDERSON: It's coming to
27
28 resolution we believe. It's been awhile since we
29
30 revisited it, and it will be an ongoing action with
31
32 the university to get that implemented. And that
33
34 will be reflected later when we do the proposed plan
35
36 and ROD for Operable Unit 3. It has no bearing on
37
38 the Antimony Removal Action at hand tonight.
39

40 LYNN MOORER: So is that ROD for OU3
41
42 close on the horizon? When do you anticipate that
43
44 that's going to be ready for public consideration?
45

46 GARTH ANDERSON: Our proposed plan is
47
48 at least another year out.
49

50 LYNN MOORER: Are you certain that
51
52 your failure to get these resolved more quickly has

1
2
3
4 not endangered human or animal health and safety?
5

6 GARTH ANDERSON: No.
7

8 LYNN MOORER: You're not certain?
9

10 GARTH ANDERSON: It has not endangered
11
12 human health or safety.
13

14 LYNN MOORER: Or animal health
15
16 likewise?
17

18 GARTH ANDERSON: No, it has not.
19

20 LYNN MOORER: You're certain?
21

22 GARTH ANDERSON: There's no such thing
23
24 as certainty. You know I'm not going to answer a
25
26 question by saying I'm certain.
27

28 LYNN MOORER: I have just something
29
30 else to note. If there's any other questions --
31

32 Okay. Perhaps Mr. Marquess could
33
34 answer this. I noticed that the way OU3 now is
35
36 characterized in terms of basically being the
37
38 catch-all OU for anything that's not covered by OU1
39
40 and OU2 appears to be inconsistent with the Federal
41
42 Facility Agreement. Has the Federal Facility
43
44 Agreement, also known as the Interagency Agreement,
45
46 been amended?
47

48 SCOTT MARQUESS: I believe it's
49
50 accurate that the FFA reads I think OU2 basically is
51
52 the catch-all. Why it morphed into the way it is, I

1
2
3
4 can't answer that. Has the FFA been amended? Not to
5
6 my knowledge, no.
7

8 GARTH ANDERSON: The intent was to be
9
10 able to move forward on the Operable Unit 1 and 2
11
12 actions and not be held up by a lot of other
13
14 miscellaneous sites that were identified in the
15
16 course of a lot of the investigations. So it was
17
18 expeditious to bring those other two to closure by
19
20 putting these other miscellaneous into the third
21
22 Operable Unit.
23

24 THE VIDEOGRAPHER: Five minutes.

25
26 LYNN MOORER: I just want to comment
27
28 for you all folks that this is important to sort of
29
30 keep this in mind, the fact that this is a legal
31
32 agreement that is being basically ignored. I mean, I
33
34 don't have a problem with how it's categorized. But
35
36 compare this to when we get into real deep and heavy
37
38 discussion about the RODs, you know, about what the
39
40 cleanup levels can be and whether or not they can be
41
42 changed. That by contrast appears to be a document
43
44 that the Army is absolutely unwilling to modify or
45
46 budge from at all and have used that consistently to
47
48 indicate that they don't have any responsibility
49
50 beyond those seven contaminants of concern, yet this
51
52 is fairly significant with respect to the way it is

1
2
3
4 set up, the Federal Facility Agreement, which is
5
6 supposed to be the mother of all agreements that
7
8 govern this site, yet that could be basically sort of
9
10 modified at will. So that gives you an idea of
11
12 what's possible if you have willing parties.

13
14 LINDA WAGEMAN: Hi. It's Linda.

15
16 GARTH ANDERSON: Could you state your
17
18 full name, please, for the record?

19
20 LINDA WAGEMAN: Linda Wageman.

21
22 I'm a little bit confused over the
23
24 land use control policy and OU3. You had mentioned
25
26 you had some delays due to the fact that you didn't
27
28 own the land, is that correct, and other people did
29
30 own the land?

31
32 GARTH ANDERSON: Yes.

33
34 LINDA WAGEMAN: Who specifically owned
35
36 the land?

37
38 GARTH ANDERSON: The university.

39
40 LINDA WAGEMAN: Okay. And they still
41
42 own this land?

43
44 GARTH ANDERSON: Yes.

45
46 LINDA WAGEMAN: And we're going in and
47
48 we're cleaning up on their property?

49
50 GARTH ANDERSON: Yes.

51
52 LINDA WAGEMAN: Okay. Do we do the

1
2
3
4 same thing for OU2 as we do for OU3 in that regard,
5
6 you know, cleaning up other people's land?
7

8 GARTH ANDERSON: Well, we have
9
10 obviously access agreements with the university to be
11
12 able to do investigations and implement remedies.
13
14 When I talk about land use controls, these are things
15
16 like legal agreements that are put in place to
17
18 restrict the use of the land. And, you know, the
19
20 federal government, you know, tries not to restrict
21
22 the use of other people's property, you know, by
23
24 deeds and things. But unless we -- but we're
25
26 obviously at the stage now where we're almost to an
27
28 agreement on how to implement that.
29

30 LINDA WAGEMAN: Almost or you are in
31
32 agreement on that?
33

34 GARTH ANDERSON: We haven't revisited
35
36 it a couple of years. So it's one of those items
37
38 that we have to revisit before we get to the proposed
39
40 plan and ROD for this Operable Unit.
41

42 WANDA BLASNITZ: Wanda Blasnitz.
43
44 When you were talking about the soil
45
46 that you removed, you plan to make a hazardous waste
47
48 determination on that soil?
49

50 GARTH ANDERSON: Yes. Whenever we do
51
52 a remediation like that, the soil is sampled and

1
2
3
4 characterized before it can be shipped to anywhere to
5
6 a hazardous waste landfill, both for transportation
7
8 purposes and for disposal purposes.
9

10 WANDA BLASNITZ: So will you only
11
12 check the -- I heard Lynn mention the seven things
13
14 that you're concerned with or -- (inaudible)
15

16 GARTH ANDERSON: No, this is purely
17
18 for metals contamination, because the seven
19
20 contaminants of concern that you see in OU2 do not
21
22 apply to OU3.
23

24 WANDA BLASNITZ: So you'll run what to
25
26 do the test?
27

28 GARTH ANDERSON: We'll do a full
29
30 characterization of the soil before it's shipped.
31

32 WANDA BLASNITZ: Thank you.
33

34 GARTH ANDERSON: We have to take just
35
36 a quick break to do a quick tape change. We're still
37
38 continuing on with the Removal Action after the tape
39
40 change.
41

42 (8:00 p.m. - Recess taken)
43

44 (At 8:07 p.m., with all parties present as
45
46 before, the following proceedings were had, to wit:)
47

48 GARTH ANDERSON: Folks, we're back on
49
50 the record. EPA would like to just clarify real
51
52 quick about some of the land use and covenant issues

1
2
3
4 with the university. So Alise?

5
6 ALISE STOY: This is Alise Stoy from
7
8 EPA. And I just wanted to respond to Linda's
9
10 questions and issues with land use control. I wanted
11
12 to point out, we have a legal agreement with the
13
14 university from a few years ago. And in that
15
16 document we did require the university to place deed
17
18 restrictions on the north proving ground area, the
19
20 burning ground, and the landfill area. So those are
21
22 already in place. And those deed restrictions do
23
24 have language in them regarding the wildlife, habitat
25
26 area, containment area, and that is not using the
27
28 groundwater for consumption, preserving or protecting
29
30 any remedy that's in place or may be in place in the
31
32 future on those parcels of land.

33
34 And Linda, also, I mean, with regard
35
36 to concerns or issues with how does the government --
37
38 you know, we as EPA, we also run into hard times
39
40 sometimes, and we try to impose land use restrictions
41
42 on property that's not owned by the responsible
43
44 party. So I think, you know, the statement about
45
46 concerns with -- it's not that we don't think that
47
48 land use controls are appropriate. It's just it
49
50 comes down to how do we enforce them or how do we get
51
52 the land owner to agree to placing that kind of

1
2
3
4 restriction. If they're not a responsible party, it
5
6 becomes a little bit difficult. But sometimes we are
7
8 able to work out arrangements with landowners to put
9
10 restrictions in place where appropriate.

11
12 GARTH ANDERSON: Thank you.

13
14 LYNN MOORER: I did take a quick look
15
16 at the Risk Assessment from some of these tables that
17
18 are missing from looking at Mr. Marquess' copy which
19
20 he was kind enough to let me borrow. And I did have
21
22 a copy of the draft Feasibility Study from a few
23
24 years ago. And I see that with respect to Table 2-1,
25
26 which is non-carcinogenic and carcinogenic health
27
28 hazards associated with "Load Line 2 Paint
29
30 Operations, various surface soil, zero to six
31
32 inches," that particular analysis, that there was a
33
34 significant reduction in the Hazard Index for all of
35
36 those numbers. Every last one of those decreased
37
38 greatly when it went into the final one. Can
39
40 somebody explain to me why that Hazard Index
41
42 decreased so greatly?

43
44 And the other thing I want to
45
46 reference you to, and then you can explain both of
47
48 these, that if you do look at Table 2-8, which is the
49
50 Antimony Specific Child Resident Scenario Hazard
51
52 Index Calculation Results, the Antimony Hazard Index

1
2
3
4 on the draft Feasibility Study says for Load Line 1
5
6 that Antimony Hazard Index is 8.7. But if you look
7
8 at the final Feasibility Study, that 8.7 has dropped
9
10 to 1.5.

11
12 Likewise, that final column, the total
13
14 Hazard Index in the draft is 9.2, and in the final it
15
16 drops to 2.0. So it's from 9.2 to 2.0. So could
17
18 you explain to me those very significant changes
19
20 between the draft Feasibility Study and the final
21
22 Feasibility Study?

23
24 GARTH ANDERSON: I can't explain the
25
26 technical reasons for doing that, but in the process
27
28 of document review, when the regulators review a
29
30 draft document, we look at comments, we offer
31
32 responses, and we make revisions to the document. I
33
34 don't know what the specific comment or rationale for
35
36 the change might have been without looking at the
37
38 record in some detail.

39
40 LYNN MOORER: Is there anyone else
41
42 here that can explain that?

43
44 SCOTT MARQUESS: I can't tell you why
45
46 that change occurred. What I can tell you, I don't
47
48 think it would matter ultimately in the extent of the
49
50 cleanup. It's basically is there a trigger, did you
51
52 exceed the risk. And in both cases the answer would

1
2
3
4 be yes. So the next thing we're going to do is clean
5
6 it up so we don't exceed 31 parts per million for
7
8 antimony. So regardless, I don't think it would
9
10 change the extent of the cleanup. But I can't tell
11
12 you what changed from the draft to the draft final.
13
14 I'll see if I have some comments in here that might
15
16 speak to that.

17
18 LINDA WAGEMAN: Linda Wageman.

19
20 I don't think that it is a bad or is a
21
22 good or the end result is we're still going to clean
23
24 it up. That's the expectation of all of us here.
25
26 But for individuals that are actually going in and
27
28 trying to follow this, it's very difficult to know
29
30 what to believe when there are such inconsistencies
31
32 in federal documents.

33
34 Now, if a member of my staff said that
35
36 there was -- noticed that we went from ten bananas to
37
38 two bananas in their final paper, and if were to ask
39
40 them why two bananas and opposed to nine bananas, or
41
42 whatever, the expectation that I would have would be
43
44 that those individuals responsible for managing these
45
46 documents who come to the public to explain these
47
48 documents would be able to explain the
49
50 inconsistencies of these documents. That's not
51
52 happening, Garth. And I think that really what we

1
2
3
4 need, and the problem that we've had for many, many
5
6 years, are the inconsistencies. So you know, I'm not
7
8 saying to go out and get nitty gritty and try and
9
10 find the answer here for this one situation. But
11
12 what I am asking you to be is a bit sensitive here,
13
14 because I know what it's like to research and find
15
16 these inconsistencies, and Lynn obviously does as
17
18 well.

19
20 GARTH ANDERSON: Thank you.

21
22 LYNN MOORER: Mr. Marquess, your last
23
24 remark was another way of saying that as long as the
25
26 Hazard Index is greater than one, that's all that
27
28 really matters?

29
30 SCOTT MARQUESS: (Nods head).

31
32 LYNN MOORER: You're nodding your
33
34 head, for the record, saying yes.

35
36 In my reading through what there was
37
38 provided with respect to the Feasibility Study
39
40 however, I got the distinct understanding though that
41
42 the extent of area that you anticipate cleaning up is
43
44 directly related to where you identify the hazard to
45
46 be or the Hazard Index Level to be greater or less
47
48 than one.

49
50 GARTH ANDERSON: We identified areas
51
52 that had a Hazard Index of greater than one. And

1
2
3
4 that is what triggers a cleanup for non-carcinogenic
5
6 compounds.
7

8 LYNN MOORER: And how you come up with
9
10 the Index number then does matter. All right? As I
11
12 mentioned, your Feasibility Study draft version on
13
14 Table 2-1 had much higher numbers. And a lot more of
15
16 them were higher than one than in the final version.
17
18 So it would matter that -- it would seem to me from a
19
20 logical point of view that's going to contribute to
21
22 your calculation of the areas then that need to be
23
24 cleaned up under and the relative level of risk, because
25
26 more of the numbers were above one in your draft
27
28 study as compared to the final study.
29

30 GARTH ANDERSON: There's going to be
31
32 some variations with the final volume of what the
33
34 remediated soil is going to be. By finding an area
35
36 with a Hazard Index of greater than one. We have
37
38 identified the area, and that's -- it triggers an action,
39
40 and we continue to dig until we get the 31 parts per million
41
42 level.
43

44 SCOTT MARQUESS: I don't think it's
45
46 an issue to be honest. I think the driver is that
47
48 there's nothing -- there's no antimony in the soil
49
50 remaining at the time the Removal Action is complete.
51
52 If it exceeds 31, that's the target.
53

54 Now, the Risk Assessment is kind of a

1
2
3
4 function of a number of things that are more
5
6 complicated than that. So I think it's more simple
7
8 and straightforward just to say, hey, when we're
9
10 done, there won't be any antimony greater than 31.
11
12 And that's the trigger that -- the Hazard Index is a
13
14 comparison of the exposure point concentration, the
15
16 general average concentration in some form or
17
18 fashion on the site, compared to the benchmark. And
19
20 the benchmark is 31. So if we don't leave anything
21
22 greater than 31, we won't have a Hazard Index that
23
24 exceeds one for antimony. So again, I can't tell you
25
26 why or how those numbers, you know, if they
27
28 ultimately including some additional samples that
29
30 were trying to bound, like if we had a hot area here,
31
32 we might find a Hazard Index that's really high. If
33
34 we expanded that area greatly to find the limits of
35
36 the excavation, we would basically be diluting the
37
38 average concentration, but by that, we'd be able to
39
40 throw out a cut line or an area that exceeds a certain
41
42 concentration, say 31. So that could cause the
43
44 average exposure concentration to go down and thus
45
46 the Hazard Index to go down. I don't know if that's
47
48 what happened between the draft and the draft Final
49
50 Risk Assessment.

51
52 LYNN MOORER: I think I have just one

1
2
3
4 more question on this then. I guess then how much
5
6 farther than -- once you reach a level of 31 parts
7
8 per million, say, at Load Line 2, you think you've
9
10 got the whole area, how much farther out are you
11
12 going to go in terms of an area of safety both in
13
14 terms of horizontal and vertical cleanup you see?
15
16 How much farther are you going to continue to check
17
18 it?

19
20 GARTH ANDERSON: I can't give you an
21
22 exact distance, but sampling is not an exact science.
23
24 Obviously there's a lot of variations in levels. But
25
26 when you have an excavation that's open, you have the
27
28 vertical faces and you have the bottom of the
29
30 excavation, we take a statistical sampling of the
31
32 bottom and then of the side walls to make sure that
33
34 we've achieved that level.

35
36 LYNN MOORER: Is it correct that you
37
38 only -- on the potential landfill that you actually
39
40 only found antimony at an unacceptable level at one
41
42 sample location, PL-1?

43
44 GARTH ANDERSON: That is correct.

45
46 LYNN MOORER: So it's actually only at
47
48 one location, one sample out of all of the potential
49
50 landfill is all that you found had an unacceptable
51
52 level of antimony?

1
2
3
4 GARTH ANDERSON: Yes. Still enough to
5
6 trigger an action though.
7

8 Okay. Well, it looks like we're done
9
10 with the question and answer period for the antimony
11
12 Removal Action. So what I need to do is formally
13
14 adjourn this portion of the meeting so that we can
15
16 get started with the Ordnance and Explosives portion.
17
18 We'll take a quick break while we make another tape
19
20 change so we'll have our separate transcript for
21
22 the second part of the meeting. Thank you.
23
24

(8:20 p.m. - proceedings concluded).